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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/558,727

11/28/2005

Hiroyuki Kanda

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7063

7278

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09/03/2008

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EXAMINER

SPEER, TIMOTHY M

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

09/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/558,727	Applicant(s) KANDA ET AL.	
	Examiner TIMOTHY M. SPEER	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 11/28/05 has been considered and made of record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1 and 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukherjee (USPN 4,959,257).**

4. Mukherjee teaches transparencies comprising a transparent substrate, e.g., glass, having a conductive film formed thereon. The conductive film may comprise indium tin oxide (ITO), as recited in present claim 5 (abstract). Mukherjee teaches that the ITO film may have a thickness of from 10 to 200 nm. Since the range disclosed by Mukherjee overlaps that presently claimed, it would have been obvious to one having ordinary skill in the art to select a thickness within the presently claimed range, since Mukherjee suggests such thicknesses.

5. Regarding claims 3 and 4, as noted above, Mukherjee suggests films having thicknesses within the range recited in the present claims, e.g., 10 nm. Thus, a 10 nm thick ITO layer is clearly suggested by Mukherjee. Suggested a layer would necessarily have the presently recited roughness, given a thickness of 10 nm, since the roughness could not be greater than the film thickness.

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6. With respect to claims 7 and 8, these claims merely recited a process by which the claimed film may be made. Absent evidence that the recited process step produces a product which is materially different than the prior art article, these limitations are not seen to distinguish the claimed article over that disclosed by Mukherjee.

7. The optical properties recited in claims 9-11 are considered to be inherent in Mukherjee, since the articles of Mukherjee comprise the same materials as recited in the present claims.

8. In light of the above, the present claims are considered to be prima facie obvious in view of Mukherjee.

9. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (USPN 7,309,531).

10. Suzuki teaches articles comprising a light transmitting substrate having a conductive film formed thereon (abstract and col. 7, lines 6-7, for instance). The conductive film may be indium tin oxide (ITO) and have a thickness of 10 to 500 nm, which overlaps the presently claimed range (col. 10, lines 50-53, for instance). To select a thickness within the presently claimed range would have been obvious to one having ordinary skill in the art, since Suzuki suggests such thicknesses. Additionally, Suzuki teaches that the ITO film may comprise an aggregate of columnar single crystals with the tin atoms uniformly distributed therein, meeting the limitations of claims 2, 5 and 6 (2, lines 39-41 and col. 3, lines 14-16, for example).

11. Regarding claims 3 and 4, Suzuki teaches the maximum and average roughnesses which overlap those presently claimed (col. 2, lines 46-52, for instance). Accordingly, to select roughness values within those disclosed by Suzuki would have been obvious to one having ordinary skill in the art, since Suzuki suggests such values.

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12. With respect to claims 7 and 8, these claims merely recited a process by which the claimed film may be made. Absent evidence that the recited process step produces a product which is materially different than the prior art article, these limitations are not seen to distinguish the claimed article over that disclosed by Suzuki. In any event, Suzuki teaches that the films disclosed therein may be made by the pyrosol method (col. 18, lines 36-37, for instance).

13. The optical properties recited in claims 9-11 are considered to be inherent in Mukherjee, since the articles of Mukherjee comprise the same materials as recited in the present claims.

14. In light of the above, the present claims are considered to be prima facie obvious in view of Mukherjee.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY M. SPEER whose telephone number is (571)272-8385. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith D. Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy M. Speer/
Primary Examiner
Art Unit 1794